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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/353,583 07/15/99 REICHGOTT

S GEN-040

EXAMINER

WM01/0814

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ART UNIT

PAPER NUMBER

2611

DATE MAILED:

08/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/353,583

Applicant(s)

REICHGOTT ET AL.

Examiner

Hai Tran

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

The request filed on 05/14/01 for a Request for Continued Examination (RCE) under 37 C.F.R. 1.114 based on parent Application No. 09/071,373 is acceptable and an RCE has been established. An action on the RCE follows

Response to Arguments

Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 7-17, 21-22, 24-27, 30-36, 39, 40 and 42 are rejected under 35

U.S.C. 103(a) as being unpatentable over Metz et al.(US 5666293) in view of Metz et al.(US 5978855), and further in view of Robbins et al (US 5784095).

Regarding claims 1 and 18 a set-top terminal for connecting a subscriber to a cable network, the terminal comprising:

A processor (Fig.6, element 110); and

A memory unit (Fig.6, element 120);

Art Unit: 2611

The processor only accepts the download on the specified in-band channel (Col.9, lines 40-45) and records the download in the memory unit (Col.10, lines 1-5) when one or more predetermined criteria are satisfied (Col.4, lines 29-34), the criteria tending to indicate that acceptance of the download will cause a minimum of interference with the subscriber's use of the set-top terminal (Col.5, lines 50-59). For instance, at col.5, line 56, Metz discloses downloading when the system is "OFF". Clearly, this meets the limitation of not interfering with the "subscribers use" as claimed since the TV would be "OFF" and not used at the time of the download.

Metz (US 5666293) does not specifically discloses the terminal being informed by a head-end of a specified in-band channel on which a download of data or programming is offered to set-top terminal over a cable network (Fig. 1, element 15).

Metz (US 5978855) discloses the terminal being informed by a head-end of a specified in-band channel on which a download of data or programming is offered to set-top terminal over a cable network (Col.11, lines 10-32). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to improve Metz (US 5666293) by allowing an information provider to offer one or more interactive services utilizing a text server to provide instructions to the set top terminal, as taught by Metz (US 5978855), in order to instruct the set top terminal to change to another channel and receive the application download (Col.11, lines 30-31).

Metz (US5666293) and Metz (US 5978855) do not disclose the use of an out-of-band control channel to conduct the monitoring of download information; however, Metz (US 5978855) discloses that the download indication information and the downloadable data itself is transmitted via the in-band channel (Col.11, lines 11-32).

Robbins discloses the use of an out-of-band control and program data is forwarded to the set-top originated from the head-end (Col.4, lines 21-35). Channel. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to improve Metz (US 5666293) in combination with Metz (US 5978855) by using of an out-of-band control channel to establish a multi-channel communicative connection between subscriber's set-top terminal and service provider, as taught by Robbins, in order to manage the communications necessary to deliver interactive services to subscribers as suggested by Robbins (abstract and col.1, lines 50-65+) or to provide dynamic data rate flexibility to provide subscribers with the best signal quality possible, such as a subscriber may be serviced by more than one channel to further increase the transmission flexibility or terminals are dynamically allocated to channels such that 10 terminals can simultaneously share one channel and so on.

Regarding claim 2, Metz (US 5666293) further discloses wherein the one or more criteria are downloading to the set-top terminal over the cable network (Col.5, lines 25-50).

Regarding claim 3, Metz (US 5666293) further discloses wherein the set-top terminal verifies that the data or programming offered as the download is not already resident in the memory (Col.5, lines 36-50).

Regarding claim 4, Metz (US 5666293) further discloses wherein the set-top terminal verifies that the data or programming offered as the download is specified as being intended for a class of terminals to which the set-top terminal belongs (Col.5, lines 33-35).

Regarding claims 7, 21 and 39, they read on the cable operator in Metz (US 5666293) insuring that all set-top boxes have the latest version of software installed by a given date. This is a common practice in the computer arts so that all computers can run the latest version of software distributed by the server. Therefore, it would have been obvious to one of ordinary skill in the art to modify Metz (US 5666293) by making sure all subscribers are updated by a given deadline in order that they all have benefit from latest versions of software that would not be useable if they were not updated.

Regarding claims 8, 22 and 40, it follows from the discussion of claim 21 that it would have been obvious to one of ordinary skill in the art to modify Metz (US 5666293) in order to delay the downloading by deadline in the event that the set-top box was performing a recording feature so that the program being recorded would not be interrupted.

Regarding claim 9, Metz (US 5666293) further discloses wherein the set-top terminal signals the subscriber that the download is available and requests

Art Unit: 2611

permission to accept the download, the one or more criteria including a positive response by the subscriber to the request for permission to accept the download (Col.5, lines 50-60).

Regarding claim 10, Metz (US 5666293) further discloses wherein the set-top terminal tunes to the specified in-band channel to receive the download if the one or more criteria (error free) are satisfied (Col. 10, lines 1-5).

Regarding claim 11, Metz (US 5666293) further discloses wherein if the one or more criteria are satisfied, the processor erases information in the memory unit and replaces the erased information with data or programming from the download (Col.10, lines 5-9).

Regarding claim 12, Metz (US 5666293) further discloses wherein following the download of programming, the processor will only execute newly-received programming from the download when one or more predetermined criteria are satisfied (Col.10, lines 10-12).

Regarding claim 13, Metz (US 5666293) further discloses wherein, prior to accepting the download, the processor determines whether any programming is stored in the memory which is not being executed, but which is identified as being later version than programming being executed by the processor at that time; if the processor locates any such later version of programming in memory, the processor will terminate execution of the programming being executed, erase the terminated programming from memory and reset so as to execute the later version of the programming (Col.9, lines 55-64).

Regarding claim 14, see analysis of claim 11.

Regarding claim 15, Metz (US 5666293) further discloses wherein the memory unit is logically partitioned into two sections, a first section for containing programming being executed by the processor (ROM or non-volatile memory) (Col.10, lines 6-9) and a second section for receiving and storing programming from the download (RAM) (Col.10, lines 1-4).

Regarding claim 16, Metz (US 5666293) further discloses wherein each download of programming contains two versions of a programming object (MPEG packets stream), a first programming object for storage in and execution from a first memory section of the memory unit and a second programming object for storage in and execution from a second memory section, of the memory unit wherein the processor downloads one of the two versions of programming in accordance with whether the first and second memory sections is vacant (Col.15, lines 60-67 and Col.16, lines 1-37) and (Col.37, lines 60-67 and Col.38, lines 1-38).

Regarding claim 17, see analysis of claim 15.

Regarding method claims 24 and 36 correspond to the apparatus claim 1; therefore they are analyzed as discussed with respect to claim 1.

Regarding method claim 25 is analyzed as discussed with respect to claim 2.

Regarding method claim 26 is analyzed as discussed with respect to claim 3.

Regarding method claim 27 is analyzed as discussed with respect to claim 4.

Regarding method claim 30 is analyzed as discussed with respect to claim 9.

Regarding method claim 31 is analyzed as discussed with respect to claim
12.

Regarding method claim 32 is analyzed as discussed with respect to claim
13.

Regarding method claim 33 is analyzed as discussed with respect to claim
11.

Regarding method claim 34 is analyzed as discussed with respect to claim
15.

Regarding method claim 35 is analyzed as discussed with respect to claim
16.

Regarding claim 42, Metz (US 5666293) further discloses wherein the programming is received in packets (Col.16, lines 17-30), the terminal being configured to reassemble the packets into an executable object and stored into non-volatile memory (Col.10, lines 1-12)

2. Claims 5, 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Metz et al. (US 5666293) in view of Metz et al.(US 5978855), and further in view of Robbins et al (US 5784095) and further in view of Diehl et al. (US 5,373,557).

Regarding claims 5 and 28, Metz. (US 5666293), Metz et al. (US 5978855), and Robbins do not specifically show wherein the one or more criteria include a time of day.

Diehl et al shows a time of day criteria is included in the download of data (Diehl et al, Col.1, lines 55-60 and Col.3, lines 5-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Metz (US 5666293) in combination with Metz et al. (US 5978855) and Robbins by including a time of day criteria in the download data in order to determine the possibility to download during the off peak hours of use.

3. Claims 6, 19, 29 and 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Metz et al. (US 5666293) in view of Metz et al.(US 5978855) and further in view of Robbins et al (US 5784095), and further in view of Mankovitz(US.5,640,484) .

Regarding claim 6, Metz (US 5666293), Metz et al. (US 5978855), and Robbins do not specifically show one or more criteria include whether the set-top terminal is turned off.

Mankovitz shows a criteria to check whether or not the television is turned off (Col.1, lines 65-67). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Metz (US 5666293) in combination with Metz et al. (US 5978855) and Robbins by inserting a criteria for verifying whether or not the set-top box is off, in order not to interrupt the television viewing during the download of data to the set-top box.

Regarding claims 19, 29 and 37, see analysis of claim 6.

4. Claims 20 and 38 rejected under 35 U.S.C. 103(a) as being unpatentable over Metz et al.(US. 5,666,293) in view of Metz et al.(US 5978855) and further in view of Robbins et al (US 5784095), and further in view of Iggulden et al. (US 5,987,210).

Regarding claim 20, Metz (US 5666293), Metz et al. (US 5978855), and Robbins fail to disclose that one or more criteria include detection of commercial break in television programming being received by set top terminal.

Iggulden shows a processor (114) for processing the video signal to detect the presence of commercial messages (Fig.1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Metz (US 5666293) in combination with Metz et al. (US 5978855) and Robbins by inserting a video event detector to detect the criteria for commercial break in order to define the time for downloading software so it would not interfere with the viewer watching the main television program.

Regarding claim 38, see analysis of claim 20.

5. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Metz et al.(US. 5,666,293) in view of Metz et al.(US 5978855) and further in view of Robbins et al (US 5784095), and further in view of McClellan et al.(US. 5,619,250).

Regarding claim 23, Metz (US 5666293), Metz et al. (US 5978855), and Robbins do not specifically show one or more criteria including a positive response by subscriber to request for permission to execute new programming.

McClellan shows that subscriber usually has to request to restart the set-top box in order to reset the set-top box to new configuration (Col.3, lines 19-23).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Metz (US 5666293) in combination with Metz et al. (US 5978855) and Robbins to include a criteria of requiring subscriber to request for permission to execute new programming in order to reset the set-top box to new configuration so it would not interrupt any current TV program being viewed.

6. Claim 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Metz et al. (US. 5,666,293) in view of So (US.5,909,559).

Regarding claim 41, Metz does not specifically show a set-top terminal with two processors wherein the first processor is dedicated to provide a user interface and a second processor is dedicated to manage the download process.

So shows a system with dual processors, which operate multitask in dual processing mode (Fig.1, Col.129, lines 21-37, Fig.24, Col.137, lines 45-65 and Fig.94 and 95, Col.151, lines 39-67+). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Metz by implementing a dual processors set-top terminal in order to improve the performance of multitasking task and interference with the broadcasting task by assigning the download task on one processor and the broadcasting service on the other processor.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gordon et al (US 6253375) shows a system for interactively distributing information service.

Haman et al. (US 6166728) shows a display system with programmable display.

Michaud (US 6057874) shows an infrared blaster control system in cable television communication system.

St-Hilaire et al. (US 5943321) shows a circuit set-up and caching for multimedia multipoint servers.

Lett (US 5771064) shows a home communication terminal having an applications module.

Banker et al. (US 5497187) shows an In-Band/Out-of-Band data transmission method and apparatus for a television system.

Art Unit: 2611

Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or Faxed to:

(703) 382-9314, (for formal communication intended for entry)

or:

(703) 308-5399, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (703) 308-7372. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377



**ANDREW FAILE
SUPERVISORY PATENT EXAMINER
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HT:ht
August 10, 2001